

Title (en)

Cancerous or pre-cancerous tissue visualization method and device

Title (de)

Verfahren und Vorrichtung zur Darstellung von krebsartigem oder vorkrebsartigem Gewebe

Title (fr)

Procédé et dispositif de visualisation de tissus cancéreux ou pré- cancéreux

Publication

EP 2347703 B1 20120711 (EN)

Application

EP 11150412 A 20110107

Priority

LU 91641 A 20100121

Abstract (en)

[origin: EP2347703A1] The cancerous or pre-cancerous tissue visualization method comprises providing a fluorescence intensity image as well as a fluorescence lifetime image of the tissue; localizing a region of healthy tissue and a region of cancerous or pre-cancerous tissue in the fluorescence intensity image; identifying in the fluorescence lifetime image one or more first pixels corresponding to the region of healthy tissue and one or more second pixels corresponding to the region of cancerous or pre-cancerous tissue; defining a weighting function mapping fluorescence lifetime values onto weighting factors in a range from a predetermined low weighting factor to a predetermined high weighting factor based upon the constraint that the weighting function maps a fluorescence lifetime value contained in the one or more first pixels onto the low weighting factor and a fluorescence lifetime value contained in the one or more second pixels onto the high weighting factor; producing a weighted fluorescence intensity image by weighting the fluorescence intensity values contained in the pixels of the fluorescence intensity image with weighting factors obtained by evaluation of the weighting function at the fluorescence lifetime values contained in corresponding pixels of the fluorescence lifetime image; displaying the weighted fluorescence intensity image.

IPC 8 full level

A61B 5/00 (2006.01); **A61B 5/103** (2006.01); **G01N 21/64** (2006.01); **A61B 1/00** (2006.01)

CPC (source: EP US)

A61B 5/0059 (2013.01 - EP US); **A61B 5/0071** (2013.01 - EP US); **A61B 5/4318** (2013.01 - EP US); **A61B 5/444** (2013.01 - EP US); **G01N 21/6408** (2013.01 - EP US); **G01N 21/6456** (2013.01 - EP US)

Cited by

WO2013184830A1; US10871448B2; US9493810B2; US11307204B2; EP3305170B1; WO2022258467A3

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